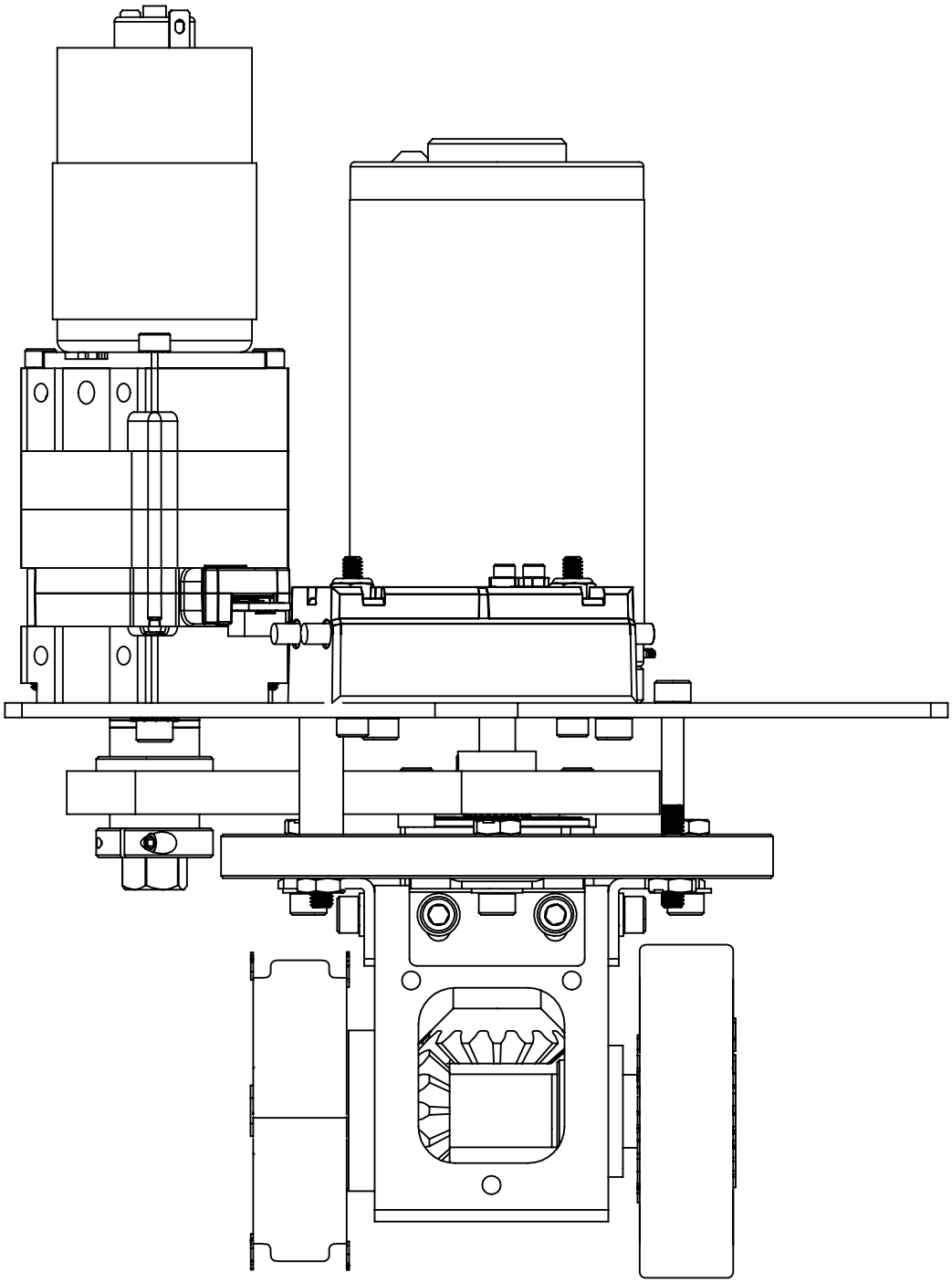
ARMABOT

Simple Swerve

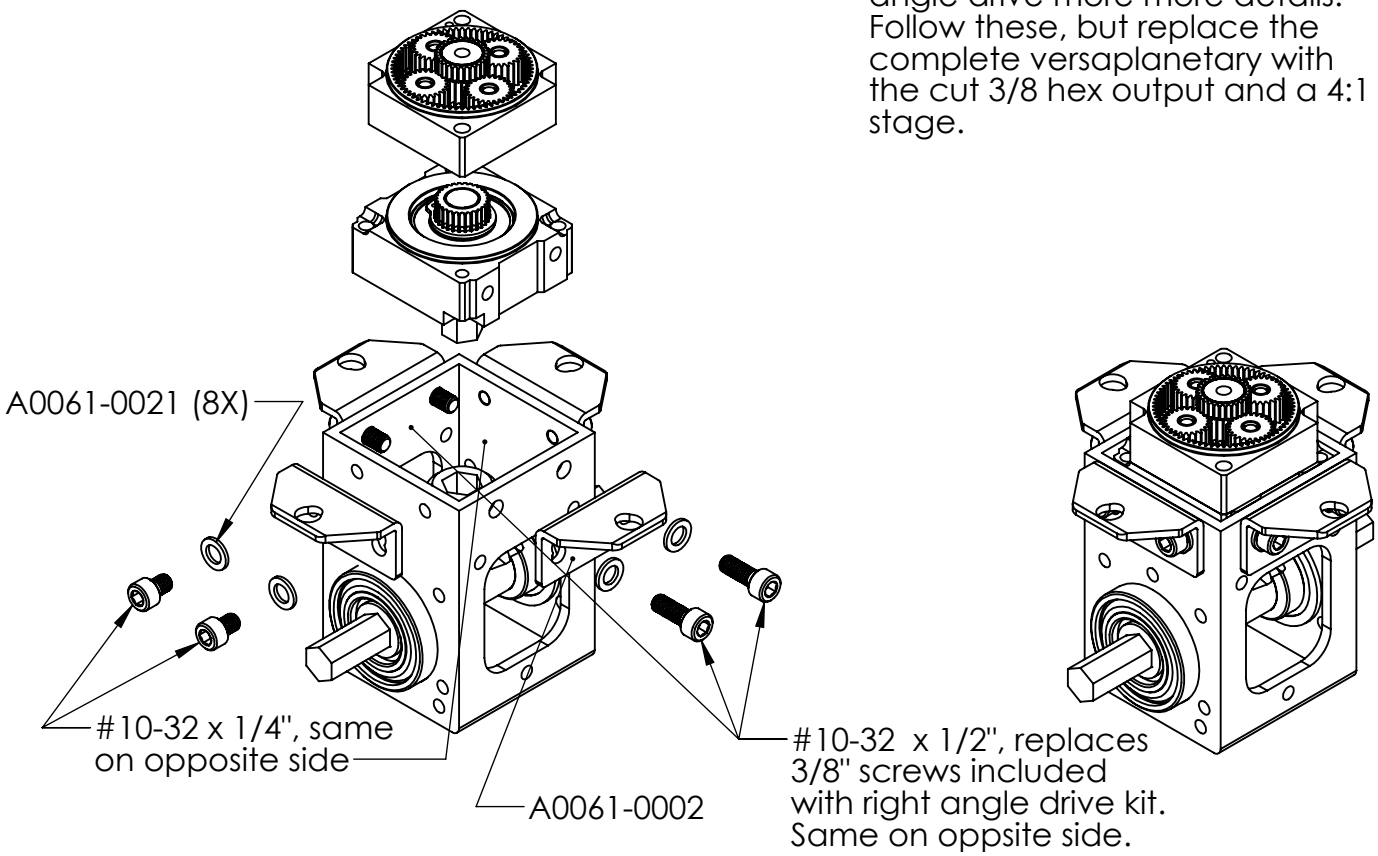
P/N A0061

Assembly Instructions

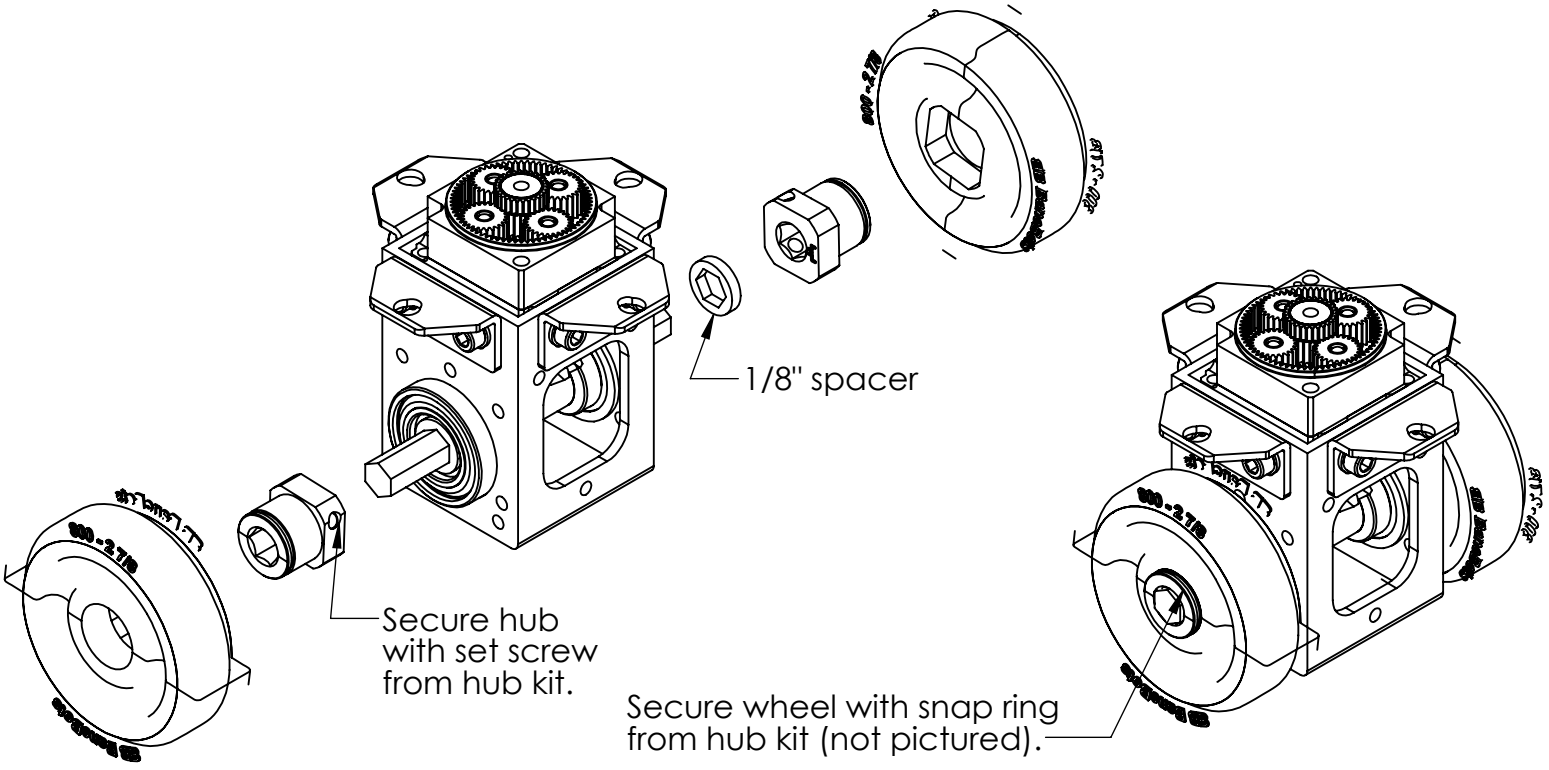


1. Assemble Right angle drive

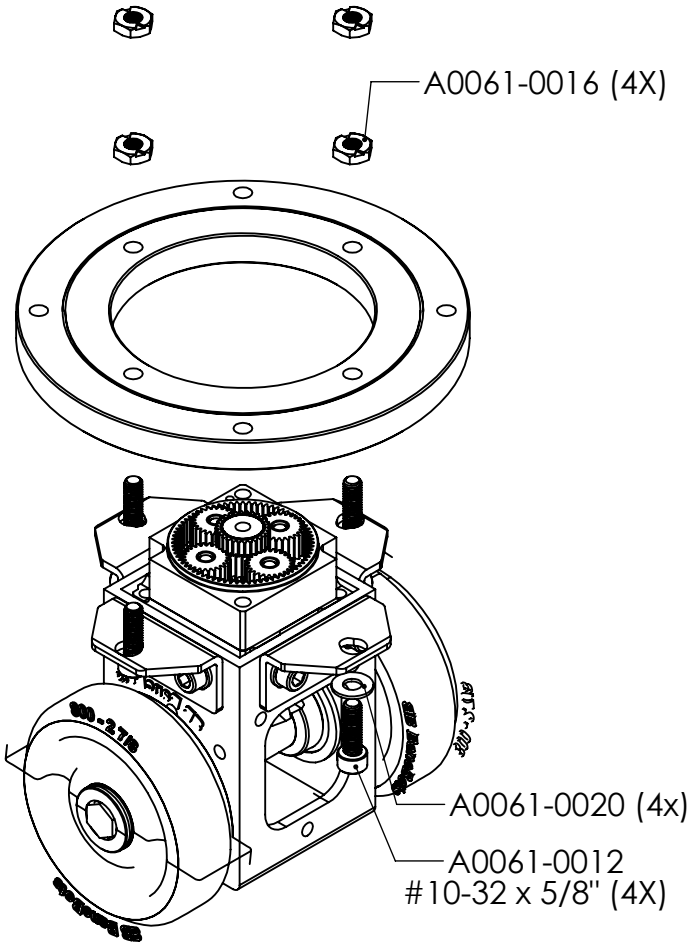
See instructions for Armabot right angle drive more more details. Follow these, but replace the complete versaplanetary with the cut 3/8 hex output and a 4:1 stage.

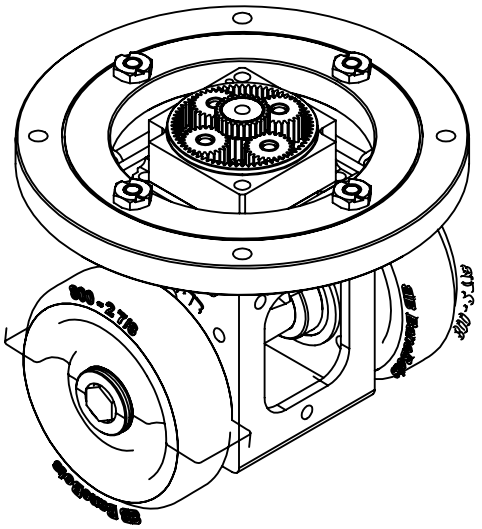


2. Place wheels on shaft

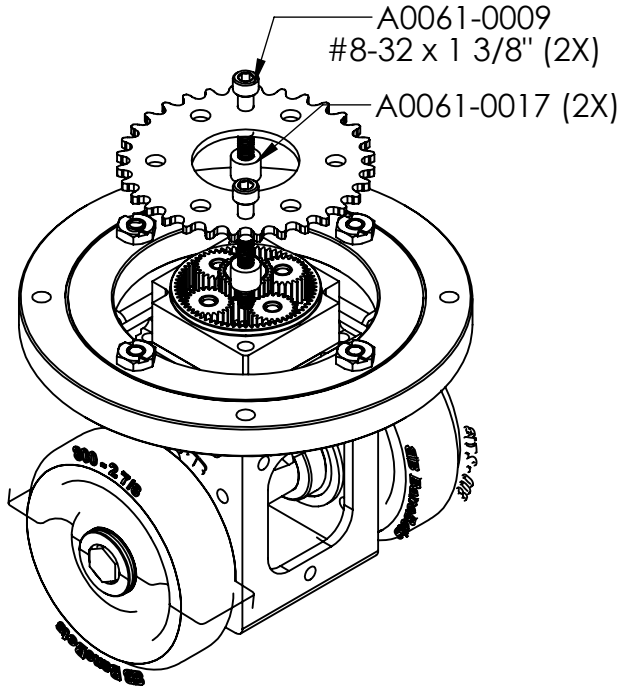


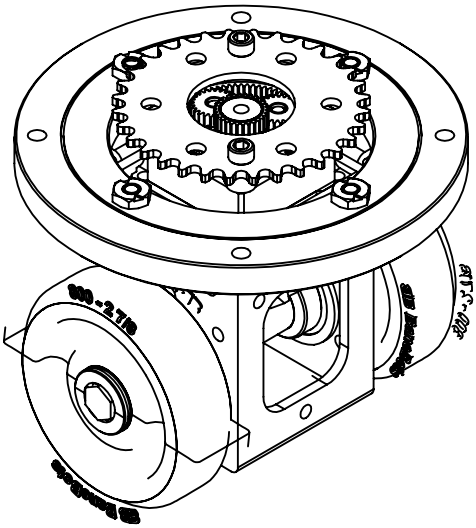
3. Attach bearing to wheel module.



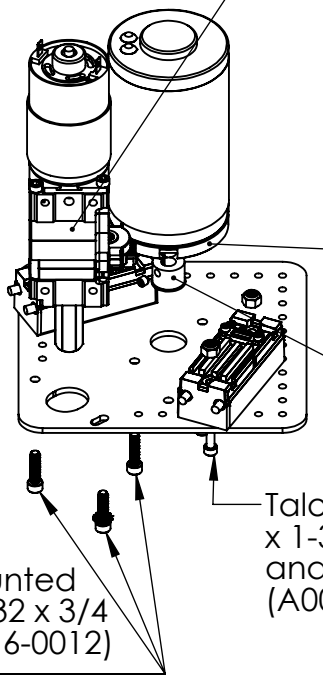


4. Attach 32T sprocket (modified)





5. Assemble top plate



Versaplanetary with stackup:
1. 775pro input
2. 10:1 stage
3. 5:1 stage
4. VP Integrated Encoder
5. 1/2" hex output

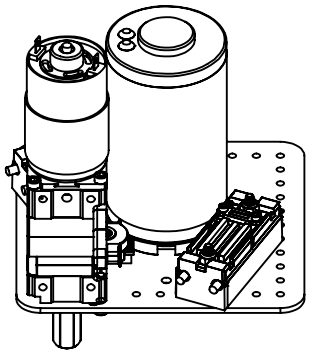
See detailed VP instructions from vex. Screws to hold stages together are not included with VP kit. Use #8-32 x 2-3/4" (A0061-0015).

A0061-0003 Follow instructions for CIMcoder from Andymark website.

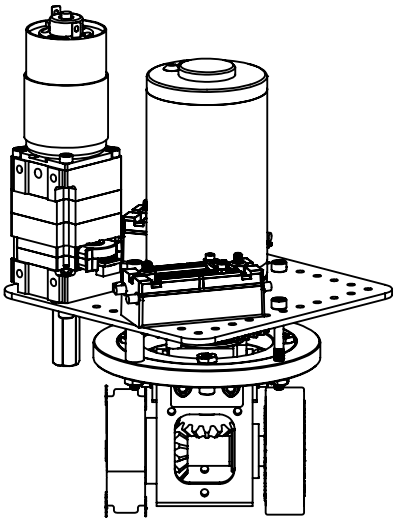
Mount input spline to cut CIM Shaft. Use short CIM key from VP kit. Secure with setscrew.

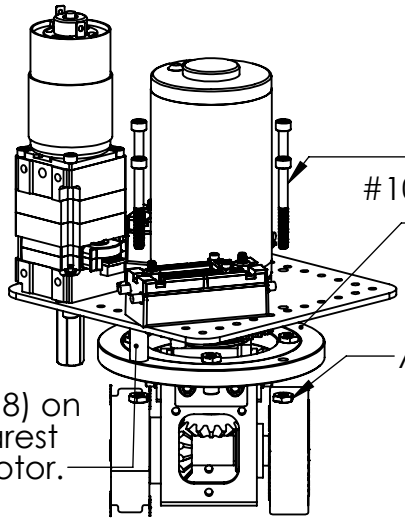
Talons mount with 2X #8-32 x 1-3/8" screw (A0061-0009) and 2X #8-32 locknut (A0061-0019) each.

VP, CIM mounted with 2X #10-32 x 3/4 screws (A0016-0012) each.



6. Attach top plate assembly to wheel module



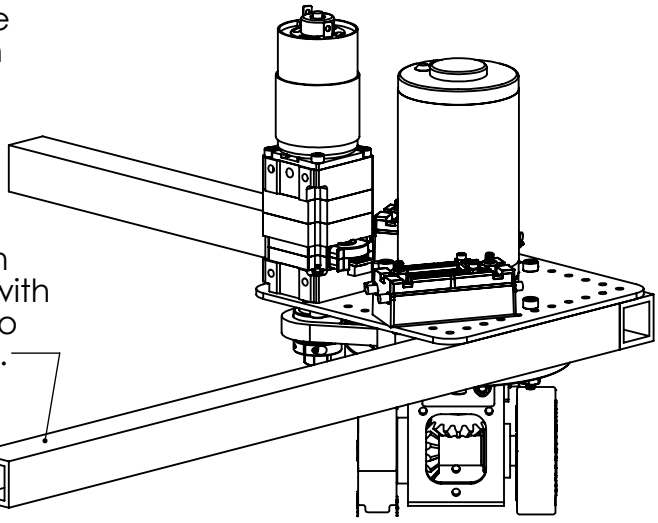


A0061-0014 #10-32 x 1-3/4" (4X)

Spacers on this corner can be replaced with frame rail.

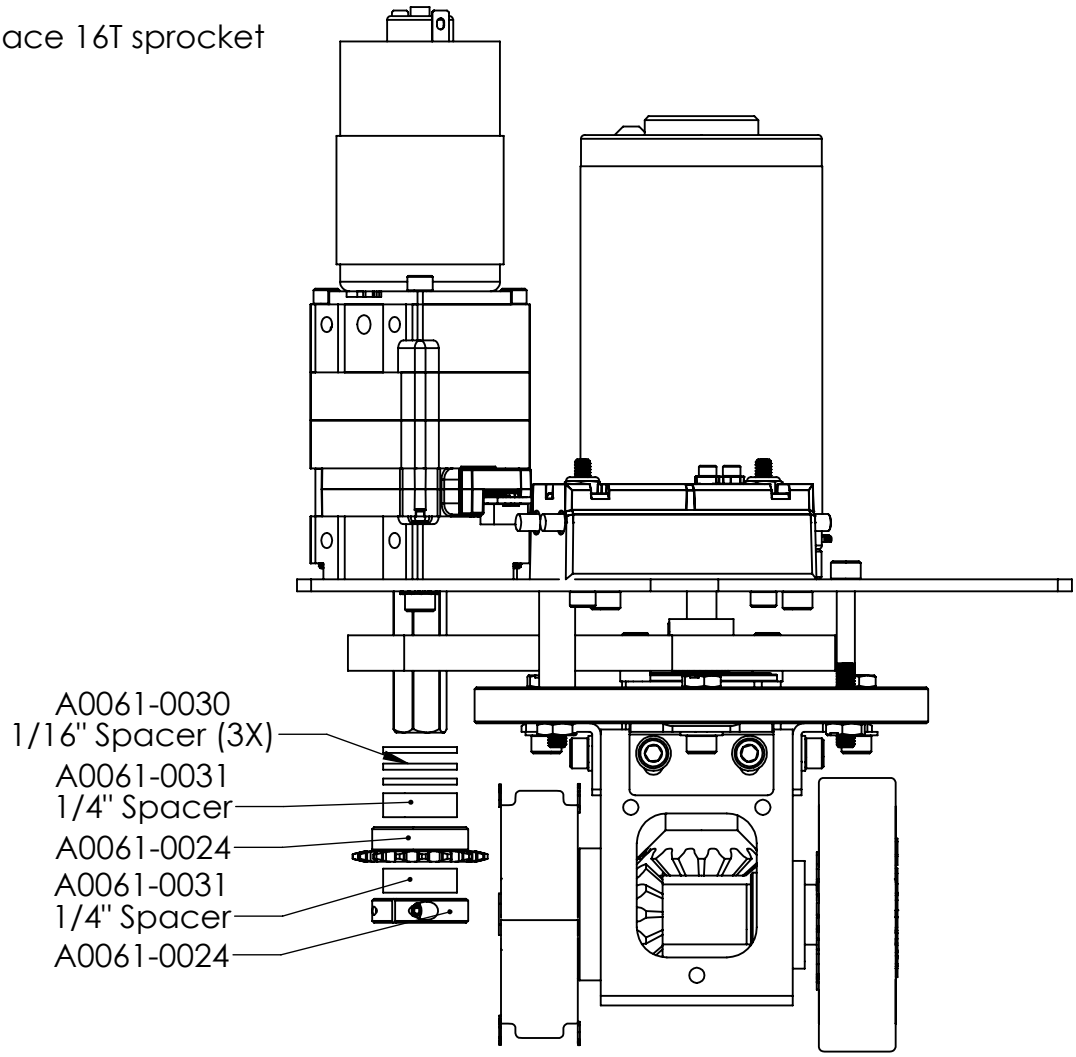
A0061-0016 (4X)

2X spacer (A0061-0018) on corner nearest steering motor.



1x1 tubing can be attached with rivets or bolts to make a frame.

7. Place 16T sprocket



8. Place chain
Use the master link that comes with the chain. You can use the sprocket to align the 2 ends. Then loosen the VP mounting screw in the slotted hole and twist the module to tension, and re-tighten the screw.The wheels should spin with even resisance throughout the full range of rotation. if this does not hapen, the axes of the vertical wheel drive shaft and the lazy susan bearing may be misaligned. This can be fixed by loosening the screws mounting the wheel module to the bearing and rotating the module to center it before re-tightening.

9. Wire components
Use the encoder breakout board (A0061-0034) to connect the CIMcoder to the Talon SRX that controls the drive. Use a Talon SRX Data Cable (A0061-0033) to do this. Use another one to connect the VP Integrated Encoder to the other Talon SRX (the one that controls the steering). This allows control loops to be run directly on the Talon, saving roboRIO power and allowing a faster frequency.